Listing of Claims:

1. (Previously presented) A device adapted to be used in a communication system, the communication system using one of OFDM, NBFDM, DMT, FDMA and TDMA, comprising:

a plurality of first transceiver units operable to communicate in continuous bi-directional manner for the direct exchange of information with a second transceiver unit disposed remotely therefrom using a common frequency;

means for detecting responsive to a continuous comparison of received and detected signals in each of said first transceiver units a comparative offset between respective common frequency references used locally by said first transceiver unit and the second transceiver unit in at least one first signal transmitted by said first transceiver unit and received by the second transceiver unit, wherein the common frequency is a carrier frequency in at least one of the first transceiver units and a sampling frequency in at least one other of the first transceiver units;

means for adjusting the common frequency in each of said first transceiver units in accordance with the offsets detected responsive to the continuous comparison of received and detected signals in at least one second signal to be transmitted by the second transceiver unit and to be received by said first transceiver unit to correct for an error in the common frequency reference used locally thereat, so that the effects of the offset to be perceived by said first

transceiver unit will be substantially reduced in preemptive manner, the second signal to be transmitted being thereby adjusted to be in substantial frequency lock with the common frequency reference of said first transceiver unit.

2-3. (Canceled).

4. (Previously presented) A device according to claim 1, wherein the means for detecting the offsets in at least one of the first transceiver units includes means for performing a correlation on a digital representation of the first signal so as to lock onto the offset in the carrier frequency.

5. (Previously presented) A device according to claim 1, wherein the means for adjusting the common frequencies in at least one of the first transceiver units includes means for digitally shifting data in frequency to be transmitted in accordance with the carrier frequency and the offset corresponding thereto.

6-7. (Canceled).

8. (Previously presented) A device according to claim 1, wherein the means for detecting the offsets in at least one of the first transceiver units includes

means for locking onto the offset in the carrier frequency and for producing an output signal corresponding thereto.

9. (Previously presented) A device according to claim 8, wherein the means for adjusting the common frequencies in at least one of the first transceiver units includes means for variably adjusting a reference frequency output by a crystal oscillator in accordance with the output signal generated by the locking means.

10-14. (Canceled).

15. (Previously presented) A method adapted to be used in a communication system, the communication system using one of OFDM, NBFDM, DMT, FDMA and TDMA, wherein the communication system comprises a plurality of first transceiver units operable to communicate in continuous bi-directional manner for the direct exchange of information with a second transceiver unit disposed remotely therefrom using a common frequency, the method comprising:

detecting responsive to a continuous comparison of received and detected signals in each of said first transceiver units a comparative offset between respective common frequency references used locally by said first transceiver unit

and the second transceiver unit in at least a first signal transmitted by said first transceiver unit and received by the second transceiver unit, wherein the common frequency is a carrier frequency in at least one of the first transceiver units and a sampling frequency in at least one other of the first transceiver units; and,

adjusting the common frequency in each of said first transceiver units in accordance with the offsets detected responsive to continuous comparison of received and detected signals in at least one second signal to be transmitted by the second transceiver unit and to be received by said first transceiver unit to correct for an error in the common frequency reference used locally thereat, so that the effects of the offsets to be perceived by said first transceiver unit will be substantially reduced in preemptive manner, the second signal to be transmitted being thereby adjusted to be in substantial frequency lock with the common frequency reference of said first transceiver unit.

16-17. (Canceled).

18. (Previously presented) A method according to claim 15, wherein the step of detecting the offsets for at least one of the first transceiver units includes performing a correlation on a digital representation of the first signal so as to lock onto the offset in the carrier frequency.

19. (Previously presented) A method according to claim 15, wherein the step of adjusting the common frequencies for at least one of the first transceiver units includes digitally shifting data in frequency to be transmitted in accordance with the carrier frequency and the offset corresponding thereto.

20-21. (Canceled).

22. (Previously presented) A method according to claim 15, wherein the step of detecting the offsets for at least one of the first transceiver units includes locking onto the offset in the carrier frequency and producing an output signal corresponding thereto.

23. (Previously presented) A method according to claim 22, wherein the step of adjusting the common frequencies for at least one of the first transceiver units includes variably adjusting a reference frequency output by a crystal oscillator in accordance with the output signal generated by the locking means.

24-28. (Canceled).

29. (Previously presented) A device adapted to be used in a plurality of first transceiver units to communicate with a second transceiver unit using a common frequency, the device comprising:

a frequency lock loop in at least one of said first transceiver units and a delay lock loop in at least one other of said first transceiver units respectively coupled to receive digital representations of at least one first signal transmitted by the second transceiver unit, the frequency and delay lock loops being adapted to detect comparative carrier and sampling frequency offsets in the respective first signals and to produce offset information corresponding thereto indicative of offsets between respective common frequency references locally used at the first and second transceiver units; and

a frequency shift block in at least one of said first transceiver units and a timing acquisition unit in at least one other of said first transceiver units respectively coupled to receive the offset information and digital data to be transmitted by said first transceiver unit in at least one second signal to be received by the second transceiver unit disposed remotely therefrom, the frequency shift block and timing acquisition unit being respectively adapted to digitally shift and sample the digital data in frequency in accordance with the common frequencies and frequency offsets corresponding thereto to correct for errors in the common frequency references used locally at the second transceiver unit, so that the effects of the carrier and sampling frequency offsets to be perceived by the second

transceiver unit will be substantially reduced in preemptive manner for continuous wireless bi-directional communication between the first and second transceiver units for the direct exchange of information.

30. (Canceled).

31. (Previously presented) A device adapted to be used in a plurality of first transceiver units to communicate with a second transceiver unit disposed remotely therefrom using a common frequency, the device comprising:

a frequency lock loop in at least one of said first transceiver units and a delay lock loop in at least one other of said first transceiver units respectively coupled to receive digital representations of at least one first signal transmitted by the second transceiver unit, the frequency and delay lock loops being adapted to detect comparative carrier and sampling frequency offsets in the respective first signals and to produce analog offset signals corresponding thereto indicative of offsets between respective common frequency references locally used at the first and second transceiver units;

a crystal oscillator that supplies a reference frequency for modulating at least one second signal to be perceived by the second transceiver unit in accordance with the common frequency; and

variably adjustable devices coupled to receive the offset signals, the variably adjustable devices being respectively adapted to adjust the reference frequency of the crystal oscillator and a sampling clock of an analog-to-digital converter in accordance with the offset signals to correct for errors in the common frequency references used locally at the second transceiver unit, so that the effects of the carrier and sampling frequency offsets in the second signal to be perceived by the second transceiver unit will be substantially reduced in preemptive manner for continuous wireless bi-directional communication between the first and second transceiver units for the direct exchange of information.

32-33. (Canceled).

34. (Previously presented) A device adapted to be used in a communication system, the communication system using one of OFDM, NBFDM, DMT, FDMA and TDMA, the device comprising:

a plurality of first transceiver units operable to communicate in continuous bi-directional manner for the direct exchange of information with a second transceiver unit disposed remotely therefrom using a common frequency;

means for detecting responsive to a continuous comparison of received and detected signals in each of said first transceiver units a comparative offset between respective common frequency references locally by said first

transceiver unit and the second transceiver unit in at least one first signal transmitted by said first transceiver unit and received by the second transceiver unit, wherein the common frequency is a carrier frequency in at least one of the first transceiver units and a sampling frequency in at least one other of the first transceiver units;

means for communicating information corresponding to the detected offsets from the second transceiver unit to the first transceiver units; and,

means for adjusting the common frequency in each of said first transceiver units in accordance with the offsets detected responsive to continuous comparison of received and detected signals in at least one second signal to be transmitted by said first transceiver unit and to be received by the second transceiver unit to correct for errors in the common frequency references used locally thereat, so that the effects of the offsets to be perceived by the second transceiver unit will be substantially reduced in preemptive manner, the second signal to be transmitted being thereby adjusted to be in substantial frequency lock with the common carrier frequency reference of the second transceiver unit.

35. (Previously presented) A device adapted to be used in a communication system, the communication system using one of OFDM, NBFDM, DMT, FDMA and TDMA, the device comprising:

a plurality of first transceiver units operable to communicate in continuous bi-directional manner for the direct exchange of information with a second transceiver unit disposed remotely therefrom using a common frequency;

means for detecting responsive to a continuous comparison of received and detected signals in each of said first transceiver units a comparative offset between respective common frequency references locally by said first transceiver unit and the second transceiver unit in at least one first signal transmitted by said first transceiver unit and received by the second transceiver unit, wherein the common frequency is a carrier frequency in at least one of the first transceiver units and a sampling frequency in at least one other of the first transceiver units;

means for communicating information corresponding to the detected offsets from the second transceiver unit to the first transceiver units; and,

means for adjusting the common frequency in each of said first transceiver units in accordance with the offsets detected responsive to continuous comparison of received and detected signals in at least one second signal to be transmitted by the second transceiver unit and to be received by said first transceiver unit to correct for errors in the common frequency reference used

locally thereat, so that the effects of the offsets to be perceived by the first transceiver unit will be substantially reduced in preemptive manner, the second signal to be transmitted being thereby adjusted to be in substantial frequency lock with the common carrier frequency reference of the first transceiver unit.